

AMENDMENTS TO THE CLAIMS

1. (Original) A method for transformation of potato plants by transforming potato plant cells with an expression vector comprising

- a) regulatory sequences of a promoter active in plants;
- b) operably linked thereto a DNA sequence encoding a protein with the biological activity of an AHA synthase resistant to inhibitors of potato plant wildtype AHA synthase; and
- c) operably linked thereto regulatory sequences which serve as transcription termination and/or polyadenylation signals in plants,

selecting for AHA synthase inhibitor resistant cells and regenerating them to transgenic plants.

2. (Currently amended) ~~A~~The method for transformation according to claim 1, wherein the expression vector comprises a the DNA sequence ~~according to SEQ ID No. of SEQ ID NO: 1.~~

3. (Currently amended) ~~A~~The method for transformation according to claim 1, wherein the DNA sequence encoding a protein with the biological activity of an AHA synthase resistant to inhibitors of potato plant wildtype AHA synthase is selected from the group consisting of

- a) a DNA sequence comprising a the nucleotide ~~according to SEQ ID NO: sequence of SEQ ID NO: 1;~~
- b) a DNA sequence comprising a nucleotide sequence which hybridizes to a complementary strand of the nucleotide sequence ~~a)of a);~~
- c) a DNA sequence comprising a nucleotide sequence which is degenerate to the nucleotide sequence of ~~a)a);~~ and
- d) a DNA sequence being a derivative, analogue or fragment of a nucleotide sequence of a), b) or c) and encoding a protein possessing AHA synthase activity and conferring resistance to AHA synthase inhibitors.

4. (Currently amended) ~~A-The~~ method for transformation according to ~~any of claims 1 to 3~~ claim 1, wherein ~~thea~~ AHA synthase promoter from Arabidopsis thaliana or ~~thea~~ nos promoter is used.
5. (Currently amended) ~~A-The~~ method for transformation according to ~~any of claims 1 to 4~~ claim 1, wherein ~~thea~~ AHA synthase terminator from Arabidopsis thaliana or ~~thea~~ OCS terminator is used.
6. (Currently amended) ~~A-The~~ method for transformation according to ~~any of claims 1 to 5~~ claim 1, wherein for selection a imidazolinone type herbicide is used.
7. (Currently amended) ~~A-The~~ method for transformation according to claim 6, wherein for selection (RS)-2-(4-isopropyl-4-methyl-5-oxo-2-imidazolin-2-yl)-5-methoxymethylnicotinic acid is used.
8. (Currently amended) ~~A-The~~ plant expression vector according to claim 1 ~~or 2~~ additionally comprising a heterologous DNA sequence.
9. (Currently amended) ~~A-The~~ plant expression vector according to claim 8, wherein the heterologous DNA sequence encodes a peptide, protein, antisense-, sense-RNA, viral RNA or ribozyme.
10. (Currently amended) ~~A-The~~ plant expression vector according to claim 9, wherein the heterologous DNA sequence contains information that causes changes in the carbohydrate concentration and the carbohydrate composition of regenerated potato plants.
11. (Currently amended) ~~A-The~~ plant expression vector according to claim 10, wherein the heterologous DNA sequence contains information that causes ~~the~~ increased production of amylopectin type starches.

12. (Currently amended) ~~A~~The plant expression vector according to claim 10, wherein the heterologous DNA sequence contains information that causes ~~the~~ increased production of amylose type starches.

13. (Currently amended) A transgenic potato plant cell produced by the method for transformation according to ~~any of claims 1 to 7~~ claim 1 and containing a the plant expression vector according to claim 1 additionally comprising a heterologous DNA sequence ~~according to any of claims 8 to 12~~.

14. (Currently amended) A transgenic potato plant produced by the method of transformation according to ~~any of claims 1 to 7~~ claim 1, wherein the regenerated plant exhibits an elevated resistance to imidazolinone type herbicides.

15. (Currently amended) ~~Harvest~~ A harvest product of the transgenic potato plant according to ~~any of claims 13 and claim~~ claim 14 comprising a the DNA sequence of SEQ ID No. NO: 1 ~~or a DNA sequence according to claim 3~~.

16. (Currently amended) ~~Harvest~~ The harvest product according to claim 15 wherein the harvest product is a tuber.

17. (Currently amended) Propagation material of transgenic potato plants comprising a the DNA sequence of SEQ ID No. NO: 1 ~~or a DNA sequence according to claim 3~~.

18. (Currently amended) ~~Use of a DNA sequence SEQ ID No. 1 according to claim 2 or a DNA sequence according to claim 3, or a plant expression vector according to of any of claims 8 to 12 in potato~~ Potato plant cells, potato tissue cultures, potato plants and/or potato plant breeding comprising the DNA sequence of SEQ ID NO: 1.

19. (New) A harvest product of the transgenic potato plant according to claim 14 comprising a DNA sequence encoding a protein with the biological activity of an AHA

synthase resistant to inhibitors of potato plant wildtype AHA synthase selected from the group consisting of

- a) a DNA sequence comprising the nucleotide sequence of SEQ ID NO: 1;
- b) a DNA sequence comprising a nucleotide sequence which hybridizes to a complementary strand of the nucleotide sequence of a);
- c) a DNA sequence comprising a nucleotide sequence which is degenerate to the nucleotide sequence of a); and
- d) a DNA sequence being a derivative, analogue or fragment of a nucleotide sequence of a), b) or c) and encoding a protein possessing AHA synthase activity and conferring resistance to AHA synthase inhibitors.